

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE DIVISIONAL PATENT APPLICATION OF:

RANDY E. DEWHIRST AND MARK W.
HARRISON

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EXAMINER: UNKNOWN

FOR: CENTRIFUGAL IMPELLER ASSEMBLY

La Crosse, Wisconsin
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William O'Driscoll

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Prior to calculating the claim fees for this divisional
application, Please make the following changes in the application:

In the Claims:

Please cancel claims 1-33.

Please add the following new claims.

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42. A spacer for an impeller comprising:
a contoured spacer body symmetrical about an axis and
including a front surface and a rear surface;
the front surface including a contoured surface at an
angle or curve relative to the axis;
the rear surface including a spring spacing abutment
including a washer contact surface at an end of the abutment wherein the
spring spacing abutment is axially dimensioned relative to the axis so
that a spacer assembly contacting the abutment deflects at a desired
amount.

43. The spacer of claim 42 wherein the contoured spacer
body further includes a center portion have a recess arranged in the
rear surface about the spring spacing abutment.

44. The spacer of claim 43 further including a central
bore running through the center portion symmetrical about the axis.

45. The spacer body of claim 44 wherein the front surface
includes a recess and a forward facing shoulder in the recess.

46. The spacer body of claim 45 wherein the recess is
sized to ensure that the front face is seated flush across the central
bore in order to make a substantially continuous surface.

47. The spacer body of claim 44 further including a
truncated end in the front face.

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48. The spacer body of claim 47 wherein the truncated end is sized to accommodate a protective washer, a spacer assembly, and the contoured spacer body.

49. The spacer body of claim 45 wherein the body has an aerodynamic portion extending slightly around the spring spacing abutment.

50. The spacer of claim 45 wherein the rear surface provides an outer shoulder spaced radially outwardly and an inner shoulder surface spaced radially inwardly.

51. A spacer comprising:
a contoured spacer body including a domed front end and a rear surface where the spacer body is symmetrical about an axis;
the domed front end including a front face, a rear face, and a recess spring bearing surface in the rear face.

52. The spacer of claim 51 wherein the front face includes a recess.

53. The spacer of claim 51 wherein the front face provides a continuous aerodynamic surface.

54. The spacer of claim 53 further including indent or holes in the domed front end to allow a suitable tool bit to attach to the aerodynamic surface.

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Remarks

The foregoing amendments are to be made prior to the calculation of any fees or charges relating to the submission of this divisional application.

Respectfully Submitted,



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